by powdered (grain size 5-10μ) silicon, containing (in %) 99.9206 Si, 0.0009 Fe, 0.02 Al, 0.004 Mg, 0.04 Ca, 0.004 Cu, 0.0012 Zn, 0.0012 Cr, 0.0001 Mn, 0.0013 Sn, and 0.0025 Pb, placed into a molybdenum vessel and carried into a preheated vacuum electrical furnace (1×10^{-3} mm Hg) through a special forechamber. The study was made at 1200, 1250, and 1300C, which were registered by a Pt-PtRh thermocouple and an EPP-09-type automatic potentiometer. The increases in weight (in mg km^2) of siliconized samples were determined after various exposures (t in minutes). The curves for weight increase versus time were plotted for 1200, 1250, and 1300C, and the samples were subjected to an X-ray diffraction study. During siliconizing of Mo at 1250C, the Mo_3Si phase was formed first, then (after 25 minutes) the Mo_5Si_3 phase appeared, and the $MoSi_2$ was formed after 150 minutes. The intervals between the formation of various phases decreased with increasing temperatures: the Mo_5Si_3 phase at 1200C appeared after 110 minutes, at 1250C after 25 minutes, and the $MoSi_2$ phase was formed at 1300C after 5-6 minutes. The process was a similar one during siliconizing of Ta and W except for the fact that some phases, which should have been present according to the phase diagram, did not appear at all. Only Ta_5Si_3 and $TaSi_2$ were formed during siliconizing of Ta ($Ta_{4.5}Si$ and Ta_2Si were absent); the W_5Si_3 phase appeared first and WSi_2 later during the siliconizing of W. After establishing the phase equilibrium, the chemical composition of the layer

L 15749-66 EWT(m)/ETC(f)/EPF(n)-2/EWG(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b)
ACC NR: AT5027941 SOURCE CODE: UR/0000/65/000/000/0055/0058
IJP(c) JD/JG/GS

AUTHOR: Neshiporenko, Ye. P. (Doctor of technical sciences) ; Krivoruchko, V. M.; Mitrofanov, A. S.; Poltavtsev, N. S.

ORG: none

TITLE: Siliconizing of refractory metals

SOURCE: Seminar po zharostoykim pokrytiyam. Leningrad, 1964. Zharostoykiye pokrytiya (Heat-resistant coatings); trudy seminara. Leningrad, Izd-vo Nauka, 1965, 55-58

TOPIC TAGS: molybdenum, tantalum, tungsten, heat diffusion

ABSTRACT: The kinetics and the mechanism of siliconizing of refractory metals in a vacuum under stabilized conditions (5-50 hrs) were studied previously by K. E. Ivanov and the authors (FMM, 17, 6, 862, 1964). The purpose of the present work was to study the initial stages of siliconizing and to determine the parameters controlling the rate of this complex process. A foil plate (0.1 x 10 x 20 mm) and cylindrical (0.5 mm diameter and 20 mm long) samples of Mo, Ta, and W were covered

1/3

L 5321-66

ACC NR: AP5026274

has a higher vapor pressure than Si, interferes with the supply of Si to the reacting surface. This happens only in the initial stage of the process, since equilibrium conditions begin to set in as the layer thickness increases, and the Al is gradually eliminated under the conditions of vacuum siliconizing. It is further shown that this rectilinear law of growth prevails not only in the case of compact and sufficiently thick single-phase layers but also for multi-phase layers, also because of the absence of an equilibrium at the phase interfaces (i.e. because of the variability of the concentrations of reacting substances). In this case, too, as the thickness of each phase and of the entire layer increases, an equilibrium sets in and the rectilinear law of layer growth is superseded by the parabolic law. Orig. art. has: 4 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR (Physico-Technical Institute of the AN UkrSSR)

SUBMITTED: 22Nov64 ENCL: 00 SUB CODE: MM, GC

NO REF SOV: 002 OTHER: 003

Card 2/2 nd

L 5321-66 EWT(m)/EWP(1)/ETC/EPF(n)-2/EWG(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AP5026274 UR/0226/65/000/010/0067/0070

AUTHOR: Nechiporenko, Ye. P., Krivoruchko, V. M.; Mitrofanov, A. S.

TITLE: Siliconizing of refractory metals under nonequilibrium conditions

SOURCE: Poroshkovaya metallurgiya, no. 10, 1965, 67-70

TOPIC TAGS: siliconizing, refractory metal, silicide, molybdenum compound, aluminum containing silicon, chemical bonding

ABSTRACT: The kinetics of the formation and growth of the silicides of refractory metals is a complex physicochemical process. In such cases, chemosorption is followed by growth of the layers of the products of the chemical reaction, with eventual rise of an equilibrium at the phase interfaces, i.e, constancy of the concentrations of the chemically bound components. This picture is markedly complicated when an insignificant amount of a third element takes part in the reaction or when the system of the layers that form is a multiphase system. In this connection the authors describe the results of an investigation of the kinetics of the vacuum siliconizing of molybdenum in the presence of a small amount (1.0-1.2 wt.%) of aluminum dispersed in the silicon. It is shown that in the absence of an equilibrium concentration of Si at the phase interfaces during the initial stage of siliconizing, the growth of the silicide layer in time obeys a rectilinear law, because Al, which

Card 1/2

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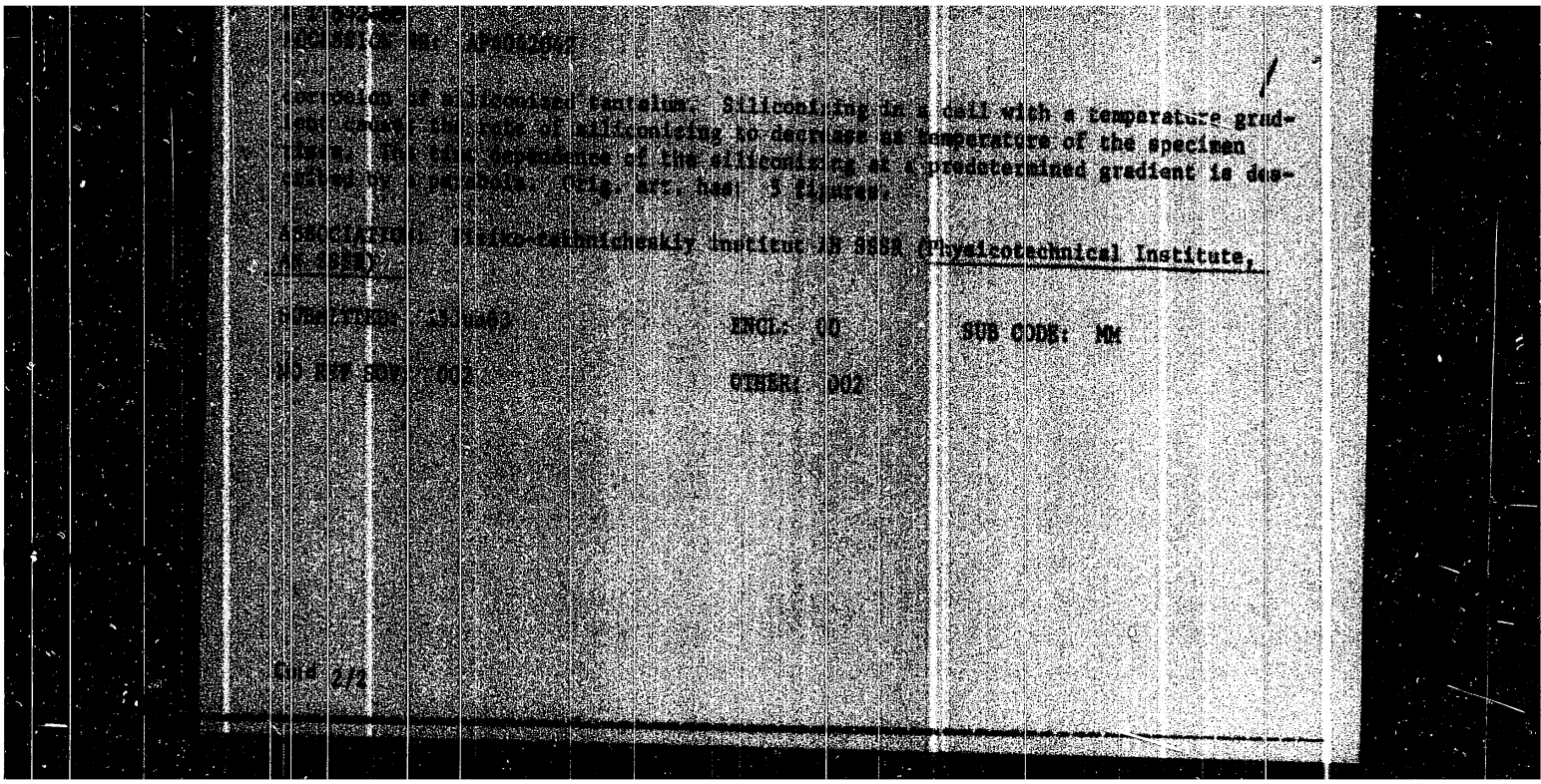


ENCL: 00 SUB CODE: MM

OTHER: 002

Card 2/2

S/0125/64/017/006/0862/0865

Author: Samsonov, G. V.; Nechiporenko, Ye. P.; Krivopuchko, V. N.; Mitrofanov, A. S.

Title: Some peculiarities of vacuum siliconizing refractory metals

Source: Ref. zh. metallurgiya, v., 17, no. 6, 1964, 862-865

Topic Tags: W, Mo, Ta, siliconizing, vacuum siliconizing, refractory metal, silicon, silicide, vapor

Abstract: The authors investigate the siliconizing of W, Mo, and Ta specimens 20 x 20 x 1.2 mm in activated silicon vapors at 1200 and 1250C and under a vacuum of 1×10^{-2} mm Hg. Eliminating all contact between the Si powder and the metal, the authors observed the behavior of the vapor phase. The formation of $MoSi_2$, WSi_2, and TaSi was identified on the surface of the specimens. The effects of time on layer thickness were plotted, and parabolas were obtained. Consequently, diffusion is a lifelong factor in the process. The layer growth is defined by the equation $h = \sqrt{D(c_2 - c_1)\tau}$, where D is the Si diffusion coefficient in silicide, c_1 is Si concentration on the inner silicide layer boundary, c_2 is Si concentration on the outer boundary, and τ is time. W and Ta give an analogous picture. In the Ta-Si phase, Ta_5Si_3 inclusions were found which can contribute to pinpointing

Card 1/2

MITROFANOV, A.S., kand. sel'khoz. nauk; ROZHKOV, M.M., kand. sel'khoz. nauk; ANTONOVA, M.M., red.; MAKHOVA, N.N., tekhn. red.; GUREVICH, N.N., tekhn. red.

[Spring and winter vetch] Vika; iarovaia i ozimaia. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1961. 101 p. (MIRA 14:7)
(Vetch)

NITROFANOV, A. S., Dr. Agri. Sci. (diss) "Scientific Bases of Cultivation of Spring Vetches (Under Natural Conditions of Forest Zone)," Minsk, 1961, 37 pp (Min. of Agri. Belorussian SSR, Inst. of Agri.) 200 copies (KL Supp 12-61, 272).

MITROFANOV, A.S., kand. sel'skokhozyaystvennykh nauk.

Raising annual grasses as a postharvest crop in the forest-meadow zone. Zhivotnovodstvo 20 no.6:35-38 Je '58. (MIRA 11:6)
(Forage plants)

USSR
Cultivated Plants. Fodder Grasses and Root Crops. M

ABS. JOUR. : RZhBiol., No. 3, 1959, No. 11097

AUTHOR : Mitrofanov, A. S., Alekseyev, Ye. D.
INST. : -
TITLE : Biological Characteristics and the Basic Methods of the Cultivation of Winter Vetch.

ORIG. PUB. : Zhivotnovodstvo, 1958, No. 3, 31-35

ABSTRACT : Villous vetch (winter variety) has valuable fodder and agricultural-technical qualities. However, due to an inadequate frost resistance it has not received proper dissemination. At the present time, local populations of villous vetch have been developed which are distinguished by frost resistance. In Moscow Oblast', there is being organized the seed production of Serpukhovskaya vetch. In the forest steppe and the steppe zones of Ukrainian SSR, there has been regionally adapted the villous vetch variety Dnepropetrovskaya which had been brought out at

CARD: 1/2

1. MITROFANOV, A.S.

2. USSR (600)

4. Grasses

7. "Annual forage grasses." P.F. Kotov and others. Reviewed by A. S. Mitrofanov. Korm. baza 3 no. 11, 52

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

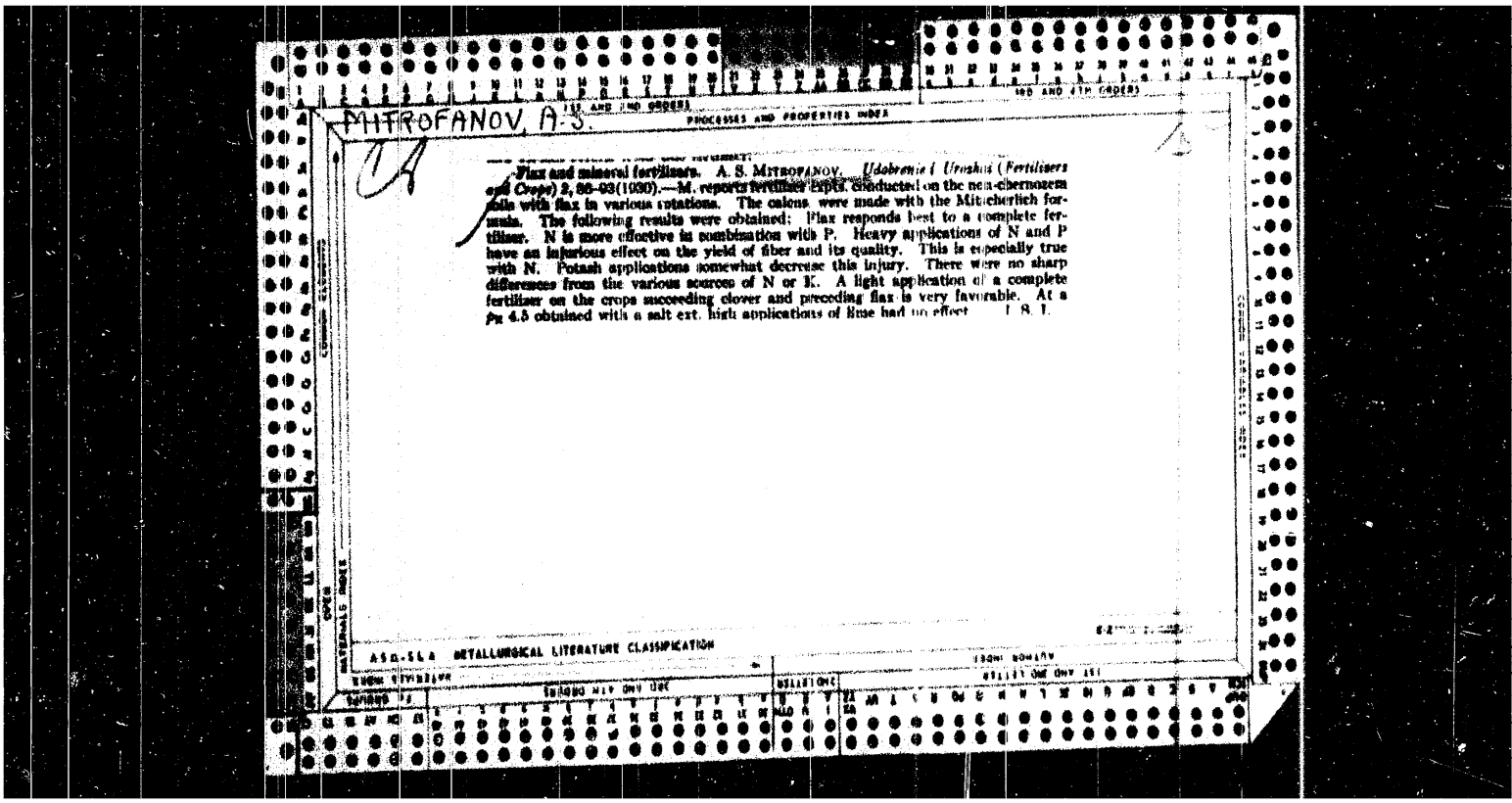
MITROFANOV, A.S.

ALEDSEYEV, M. A., MITROFANOV, A. S.

Rye

Winter rye for green fodder. Korm. baza 3 no. 4, 1952

Monthly List of Russian Accessions, Library of Congress, July 1952. UNCLASSIFIED.



MITROFANOV, A.S.

Flax and mineral fertilizers. A. S. MITROFANOV. *Udobrenie i Urozhai* (*Fertilizers and Crops*) 2, 86-93(1930).—M. reports fertilizer expts. conducted on the non-chernozem soils with flax in various rotations. The calcns. were made with the Mitscherlich formula. The following results were obtained: Flax responds best to a complete fertilizer. N is more effective in combination with P. Heavy applications of N and P have an injurious effect on the yield of fiber and its quality. This is especially true with N. Potash applications somewhat decrease this injury. There were no sharp differences from the various sources of N or K. A light application of a complete fertilizer on the crops succeeding clover and preceding flax is very favorable. At a p_H 4.5 obtained with a salt ext. high applications of lime had no effect. I. S. I.

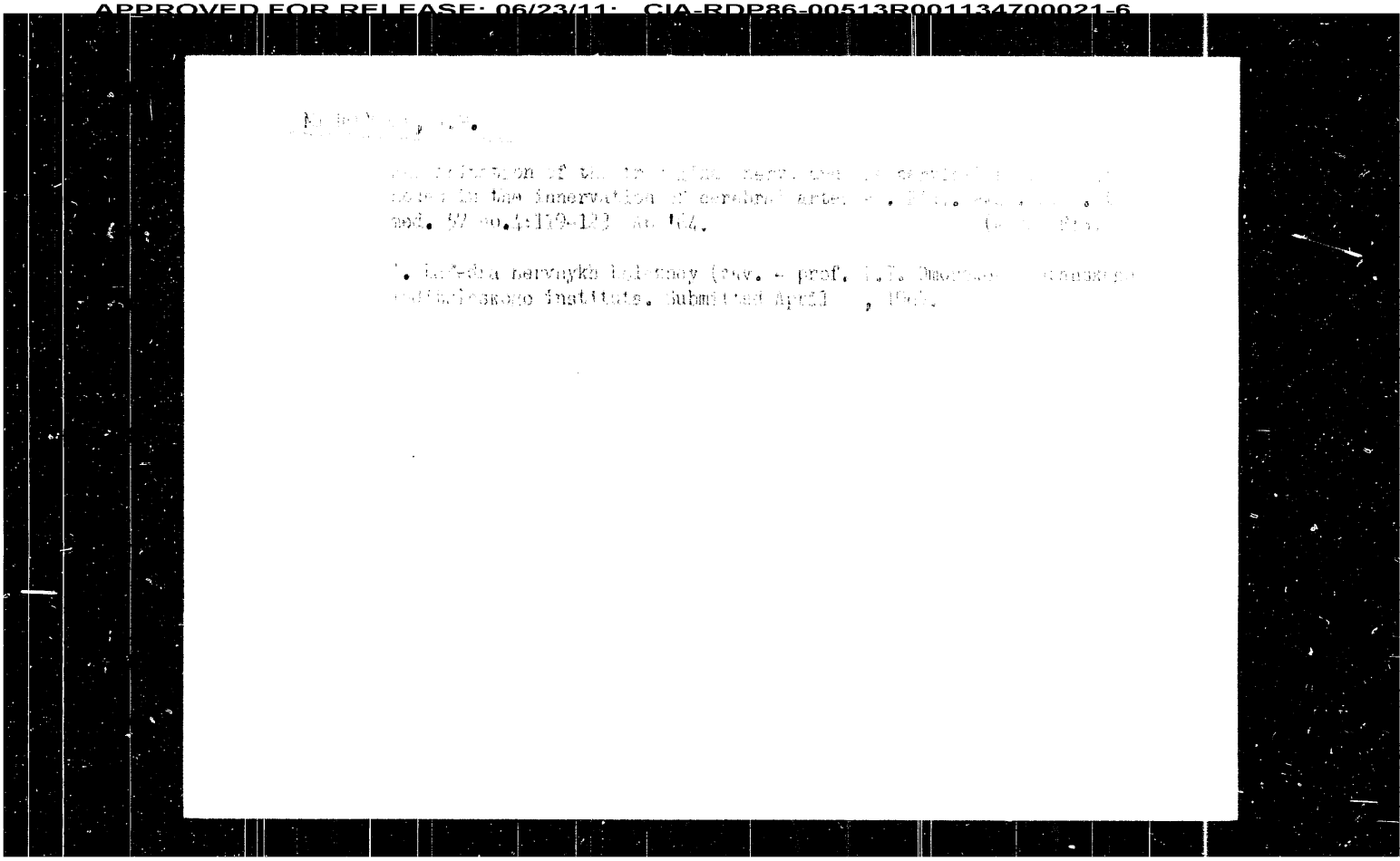
A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

MITROFANOV, A.N.

Crew of the hero of socialist labor V.IA. Karasev. Izobr.v SSSR 2 no.11:44-46 N '57. (MIRA 10:10)
(Karasev, Vladimir Iakumovich)

PRISEDSKIY, Viktor Dmitriyevich; MITROFANOV, A.M., nauchn. red.; KOLOSOV, V.N., rec.

[Safety measures in work with toxic chemicals] Tekhnika bezopasnosti pri rabote s yadokhimikatami. Moskva, Vysshaia shkola, 1965. 98 p. (MIRA 18:8)



NABOKOV, V.A.; TURICH, M.L.; MITROFANOV, A.M.; USPENSKIY, I.V.

Use of sorptive powdered desiccants in the control of [illegible], a preliminary report. Med. paraz. i parazit. bol. 33 no.5:[illegible] S-O '64. (MIRA 18:4)

1. Institut meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I.Martsinovskogo Ministerstva zdravookhraneniya SSSR, Moskva.

MURAV'YEVA, T.V.; TARKHOVSKOY, I. Ya.; [illegible]; [illegible], L.V.

Migration of the blowfly larvae (Diptera, Sarcophagidae). Med. parazit. i parazit. bol. 33 no.2:188-195 Mr-Ap '64 (MIRA 18:1)

1. Otdel entomologii (zav. - prof. V.A. Yarkevich-Ilkevich) Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo (direktor - prof. P.G. Sergiyev) Ministerstva zdravookhraneniya SSSR.

MITROFANOV, A.M.

Origins and morphology of the sensory innervation of the cerebral arteries in some mammals. Zhur. nevr. i psikh. 64 no.2:200-204 '64. (MIRA 17:5)

1. Kafedra nervnykh bolezney (zaveduyushchiy - prof. L.I. Omorokov) Kazanskogo meditsinskogo instituta.

TIMOFEYEVA, L.V.; MITROFANOV, A.N.; RASHITSIN, S.P.; TUPITSIN, L.F.; GADALIN, T.I.

Experimental use of antilarval measures in the control of black flies (Diptera, Simuliidae) along the Angara River at the construction site of the Bratsk Hydroelectric Power Station; a preliminary report. Med. paraz. i parazit. bol. 32 no.1:65-71 Ja-F'63. (MIRA 16:10)

1. Iz entomologicheskogo otdela (zav. - prof. V.A. Dobrovol'skiy [deceased]) i otdela [illegible] parazitologii (zav. - prof. V.A. Nabokov) Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I.Martsinovskogo (dir. - prof. P.G. Sergiyev) Ministerstva zdravookhraneniya SSSR.

MITROFANOV, A. M., and K. P. ANDREYEV

Primenenie aerozolei dlya bor'by s ektoparazitamy zhivotnykh v pomeshcheniyakh. Tezisy doklada. Application of aerosols for the control of indoor ectoparasites. Theses a report.

Trudy Vsesoyuznogo Nauchno-Issledovatel'nogo Instituta Veterinarnoi Sanitarii. 1h: 9-11. 1959; (Referat. Zhur., Biol., 1960. No. 30991.

TIMOFEYEVA, L.V.; MITROFANOV, A.M.; MARKOVICH, N.Ya.; MURAV'YEVA T.V.; SHVAN'KOV, M.Ye.; TUPITSYN, L.F.

Successful results in controlling blood-sucking black flies (Diptera, Simuliidae) by treating the breeding grounds; preliminary report. Med.paraz.i paraz. bol. no.1:3-9 '62. (MIRA 15:5)

1. Iz entomologicheskogo otdela (zav. - prof. V.N. Beklemishev) i otdela entomotoksikologii (zav. - prof. V.A. Nabakov) Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo (dir. - prof. P.G. Sergiyev) Ministerstva zdravookhraneniya SSSR.

(BLACK FLIES--EXTERMINATION) (DDT (INSECTICIDE))

NABOKOV, V.A.; MITROFANOV, A.M.

Modern exposimeters and their comparative evaluation in the evaluation of insecticide toxicity. Med.paraz.i paraz.bol. 30 no.2:204-207 Mr-Ap '61. (MIRA 14:4)

1. Iz otdela entomotoksikologii i dezinsektsii Instituta meditsinskoy parasitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev, zav. otdelom - prof. V.A. Nabokov).
(INSECTICIDES)

NABOKOV, V.A.; MITROFANOV, A.M.; SVIRIDENKO, M.A.

Modernized disinfecting apparatus of the LSD type and results of testing it. Med.paraz.i paraz.bol. no.3:318-322 '61.
(MIRA 14:9)

1. Iz otdela entomotoksikologii i dezinsektsii Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev, zav. otdelom - prof. V.A. Nabokov).
(DISINFECTION AND DISINFECTANTS—EQUIPMENT AND SUPPLIES)

MITROFANOV, A.M., aspirant

Residual and lavricidal effect of benzene hexachloride smoke on mosquitoes. Trudy VNIIVSE 13:125-141 '58. (MIRA 11:12)

1. Rukovoditel' prof. K.P.Andreyev.
(Benzene hexachloride) (Mosquitoes--Extermination)

NITROFANOV, A.N., Grad Vet Sci--(diss) " [illegible] study of insect-acaricidic properties of [illegible] and development of methods of their utilization in cattle [illegible] flies, mosquitoes, horse-flies, and Argas [illegible] ticks on raised husbandry farms." Kos, 1958. 19 pp (Min of Higher and Mid Spec Edn RSFSR. Kos Technological Inst of Meat and Dairy Industry), 130 copies. List of author's works, pp 18-1 (14 titles) (11,25-58, 337)

-339-

MITROFANOV, A.M., aspirant

Toxicity for farm animals of dry aerosols (smokes) from HBK-G 17 pots. Trudy VNIIVSE 12:105-112 '57. (MIRA 11:12)

1. Laboratoriya entomologii i dezinfektsii Vsesoyuznogo nauchno-issledovatel'skogo instituta veterinarnoy sanitarii i ektoparazitologii.
(Benzene hexachloride)

Mitrofanov, A.M.

ANDREYEV, K.P.; MITROFANOV, A.M.; PAVLOV, S.D.

Control of malarial mosquitoes through MBK (9-17) benzene hexachloride pots. Med.paraz. i paraz.bol.supplement to no.1:5 '57. (MIRA 11:1)

1. Iz Instituta veterinarnoy dermatologii Ministerstva sel'skogo khozyaystva SSSR.
(BENZENE HEXACHORIDE)
(MOSQUITOES--EXTERMINATION)

MITROFANOV, A.M.

ANDREYEV, K.P.; MITROFANOV, A.M.

Use of NBK (G-17) benzene hexachloride pots in controlling blood-sucking insects out of doors. Med.paraz.i parazit.bol. supplement to no.1:4-5 '57. (MIRA 11:1)

1. Iz otdela entomologii Instituta veterinarnoy dermatologii Ministerstva sel'skogo khozyaystva SSSR.
(BENZENE, HEXACHLORIDE)
(INSECTS, INJURIOUS AND BENEFICIAL)

MITROFANOV, M.M

Benzene hexachloride smoke—a new agent against *Argas persicus*. K. P. Andreev, M. V. Voronin, and A. M. Mitrofanov. *Veterinariya* 33, No. 5, 62-5(1956). Satisfactory field trials are reported on control of *A. persicus* by the use of BHC smoke bombs in aviaries. (L. M.)

3

All-Union Sci. Res. Inst. Vet. Ectoparasitol., Mikology & Sanit.

ANDRIYEV, K.P.; MITROFANOV, A.M.

Insecticide smoke to control bloodsucking Diptera and ticks on livestock farms. Veterinariia 32 no.4:78-82 Ap '55. (MLRA 8:5)

1.Gosudarstvennyy institut veterinarnoy dermatologii Ministerstva sel'skogo khozyaystva.
(INSECTICIDES) (DIPTERA) (TICKS)

MITROFANOV, A.M.

Nerve elements of the cerebral arteries and their changes in some brain diseases in man. Zhur. nevr. i psikh. 64 no.10:1498-1500 '64. (MIRA 17:11)

1. Kafedra nervnykh bolezney (zaveduyushchiy - prof. L.I. Omorokov) Kazanskogo meditsinskogo instituta.

MITROFANOV, A. M.

"Effect of Watering on the Size and Quality of the Potato Crop in the Suburban Zone of Omsk." Cand Agr Sci, Omsk Agricultural Inst, Omsk, 1953. (RZhBiol, No 3, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

So: Sum. No. 681, 5 May 55

MITROFANOV, A. M.

"Study of the Loss of Mineral Fertilizers and Measures for Controlling It." Cand Agr Sci, All-Union Sci-Res Inst of Fertilizers, Agricultural Engineering, and Soil Sci VIUAA, All-Union Order of Lenin Acad of Agricultural Sci imeni V. I. Lenin, Moscow, 1954. (KL, No 4, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)
SO: Sum. No. 598, 29 Jul 55

INSANT'YEV, A.A., gornyy inzh.; [illegible], I.I., gornyy inzh.

Experience in deep drainage at the Yakovlevo mine in the Kursk Magnetic Anomaly. Gor. zhur. no.3:16-21 Mr '63. (MIRA 17:6)

1. Yakovlevskiy rudnik Kurskoy magnitnoy anomalii.

L 7983-66

ACC NR: AP5026486 SOURCE CODE: UR/0286/65/000/019/0012/0012

AUTHORS: Mitrofanov, A. I.; Vorontsov, V. I.; Gordon, A. B.

ORG: none

TITLE: A method for obtaining a filter. Class 12, No. 175035 [announced by Scientific Research, Design, and Construction Institute for Draining the Deposits of Natural Resources (Nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut po osusheniyu mestorozhdeniy poleznykh iskopayemykh)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 12

TOPIC TAGS: epoxy, glass fabric, filter

ABSTRACT: This Author Certificate presents a method for obtaining filters from glass fabric by saturating it with a composition based on epoxy resin. To obtain the necessary porosity (permeability) in the filter, the saturated glass fabric is blown through with hot compressed air before the composition hardens.

SUB CODE: IE/ SUBM DATE: 04Jul64

Card 1/1 UDC: 66.067.322

MITROFANOV, A. I., Doc Med Sci (diss) -- "Ephedrine as an antagonist of the cholinolytics". Leningrad, 1960. 23 pp (Inst of Experimental Med of the Acad Med Sci USSR, Dept of Pharmacology), 300 copies (KL, No 11, 1960, 137)

MITROFANOV, A.I.

Analysis of the action of ephedrine on the automatic ganglia. Farm. i toks. 21 no.1:24-28 Ja-F '58. (MIRA 11:4)

1. Otdel farmakologii (zav.-deystvitel'nyy chlen AMN SSSR prof. S.V. Anichkov) Instituta eksperimental'noy meditsiny AMN SSSR.
(EPHEDRINE, effects
on autonomic ganglia, mechanism of action (Rus)
(GANGLIA, AUTONOMIC, effect of drugs on
ephedrine, mechanism of action (Rus)

Mitrofanov A.I.

MITROFANOV, A.I.

Effect of ephedrin on carotid chemoreceptors [with summary in English]. Biul.eksp.biol. i med. 44 no.7:60-64 Jl '57. (MIRA 10:12)

1. Iz otdela farmakologii (zav. - deystvitel'nyy chlen AMN SSSR prof. S.V.Anichkov) Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad. Predstavlena deystvitel'nym chlenom AMN SSSR prof. S.V. Anichkovym.

(CARDOTID SINUS effect of drugs on,
ephedrine, on responses to acetylcholine & sodium cyanide (Rus))
(EPHEDRINE, effects,
on carotid sinus responses to acetylcholine & sodium cyanide (Rus))
(ACETYLCHOLINE, effects,
on carotid sinus, eff. of ephedrine on responses (Rus))
(CYANIDES, effects,
sodium, on carotid sinus, eff. of ephedrine on responses (Rus))

MITROFANOV, A.I.

USSR/Pharmacology, Toxicology. Ganglioblocking Drugs U-4

Abs Jour : Ref Zhur - Biol., No 4, 1958, No 17578

Author : Mitrofanov A.I.
Inst : Institute of Experimental Medicine of the Academy of Sciences
Title : Antagonism of Ephedrine with the Ganglioplytics.

Orig Pub : Yezhegodnik. In-t experim. med. Akad. med. nauk SSSR, 1955, L. 1956, 170-174

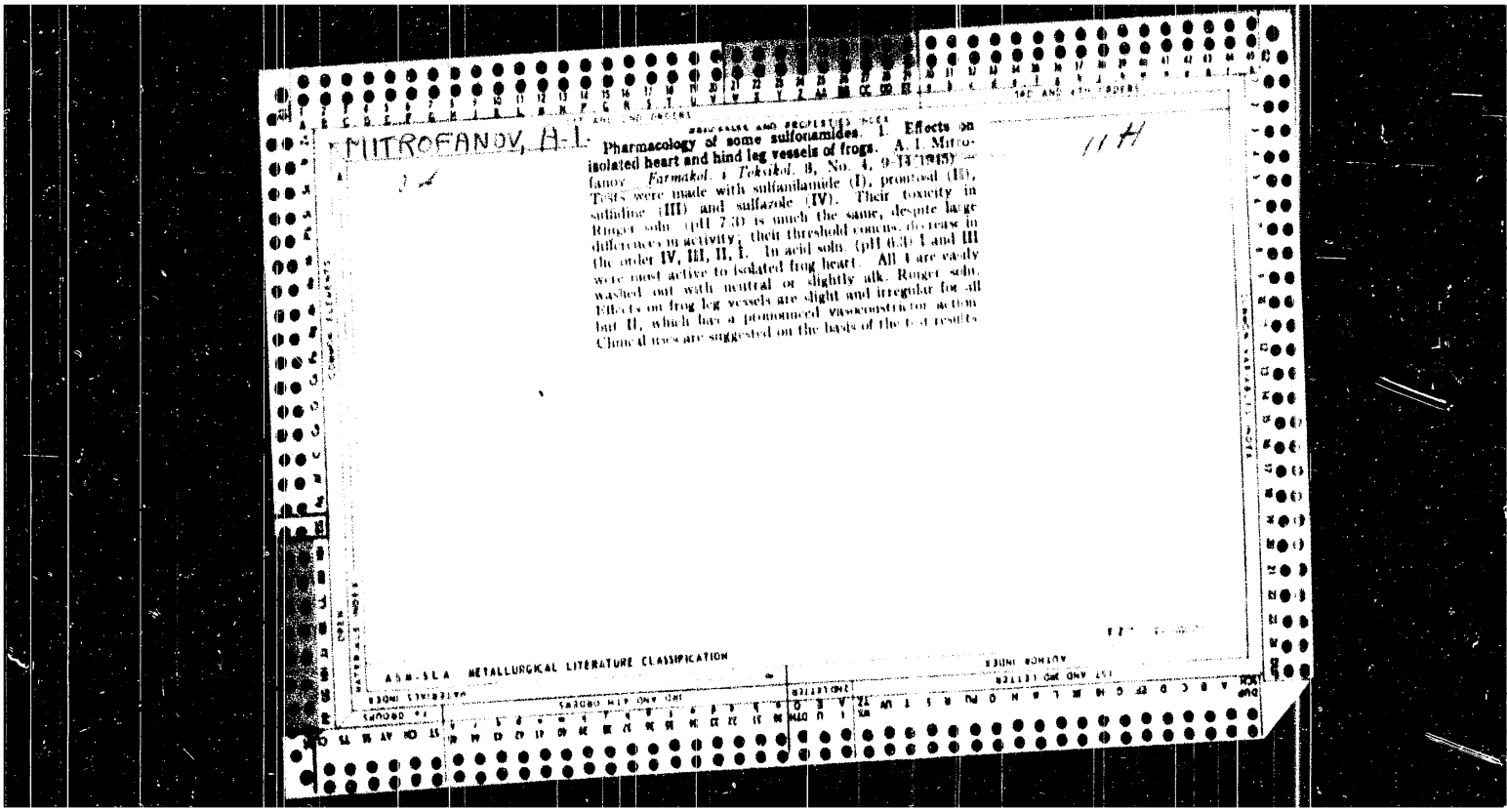
Abstract : Ammonia inhalation induced a slowing down of rhythm in rabbits (from 240 to 180-150 beats in a minute). After the administration of tethamone-I (1) in a dose of 10mg/kg, the cardiac rhythm under the influence of ammonia did not change. The reaction to ammonia was restored on the average in 8 minutes. The preliminary administration of ephedrine (11) (in 3 experiments out of 5) removed the blocking action of 11 on the cardiac ganglia of the Vagus Nerves. Tethamone-I (in a 20 mg/kg dose) blocked in blood pressure reaction to the compression of the carotid nerve on the average by 18 minutes, after the administration of 11 (0.5mg/kg)- by 8 minutes. After administering hexonium the reflex on the blood pressure disappeared in 23 minutes, ephedrine shortened this period to 8 minutes. In experiments on

Card : 1/2

MITROFANOV, A.I.

Pharmacology of sovarsene. Tr. Vsesoiuz. obsh. fiziol. no. 1: 120 1952. (CIML 24:1)

1. Delivered 14 June 1949, Smolensk.



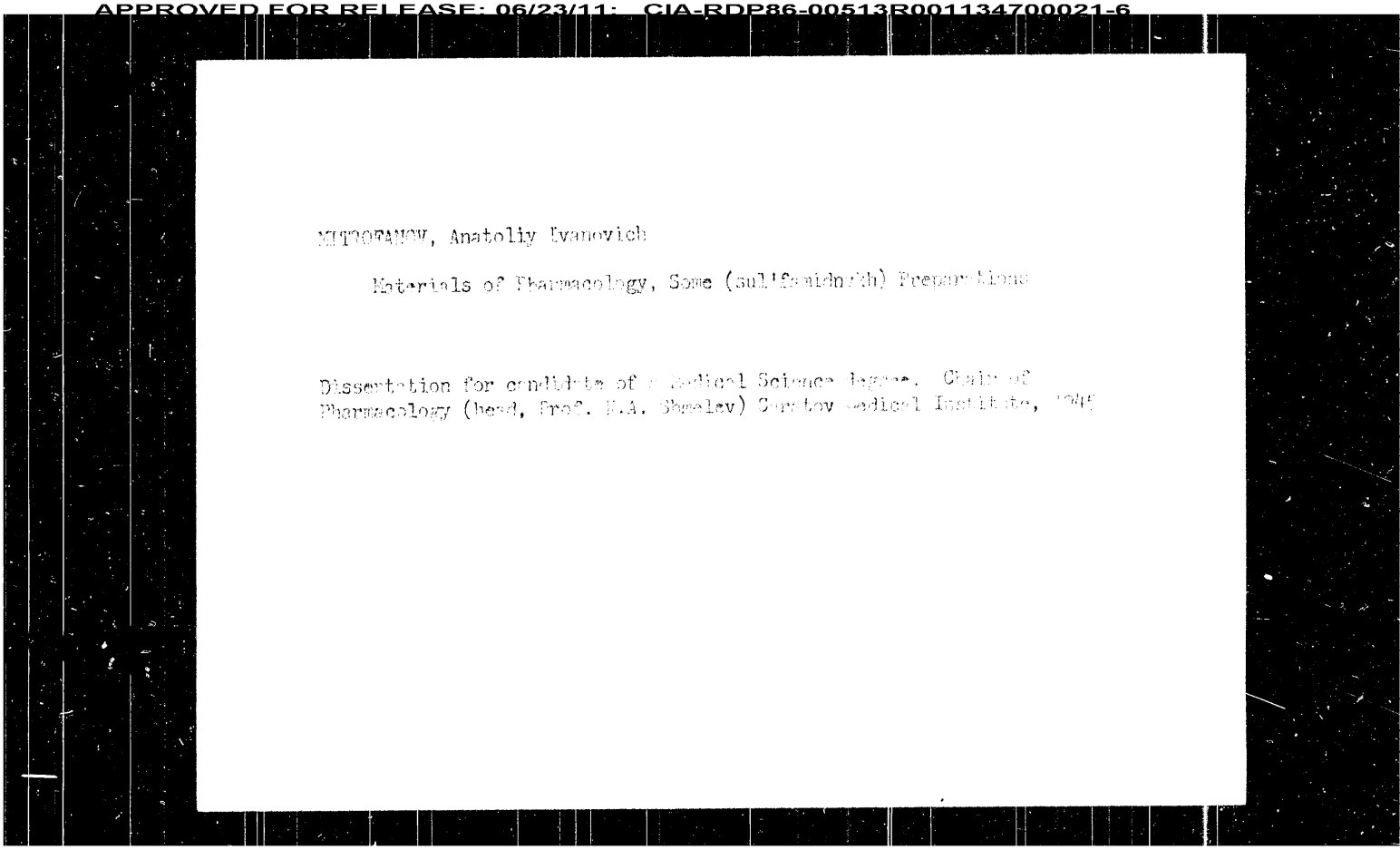
MITROFANOV, A.I.

Pharmacology of some sulfonamides. I. **Effects on isolated heart and hind leg vessels of frogs.** A. I. Mitrofanov. *Farmakol. i Toksikol.* 8, No. 4, 9-13 (1945). —

Tests were made with sulfanilamide (I), prontosil (II), sulfadine (III) and sulfazole (IV). Their toxicity in Ringer soln. (pH 7.3) is much the same, despite large differences in activity; their threshold concns. decrease in the order IV, III, II, I. In acid soln. (pH 6.3) I and III were most active to isolated frog heart. All 4 are easily washed out with neutral or slightly alk. Ringer soln. Effects on frog leg vessels are slight and irregular for all but II, which has a pronounced vasoconstrictor action. Clinical uses are suggested on the basis of the test results.

11H

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION



ZHDANOV, Anatoliy Ivanovich

Materials of Pharmacology, Some (sul'fanilamidnykh) Preparations

Dissertation for candidate of Medical Science degree. Chair of Pharmacology (head, Prof. K.A. Sheglev) Gor'kiy Medical Institute, 1941

MITROFANOV, A.I., kand. ekon. nauk; TIKHDZHIYEV, N.N., kand. ekon. nauk; BEREGOVA, L.I.; SLABCHENKO, [illegible]; SHAPIRO, Ye.A.; KORZUN, P.P., kand. ekon. nauk; KHAVKIN, S.N., kand. ekon. nauk; REZCHIKOV, A.I.; KONIKOV, L.A., red.; GERASIMOVA, Ye.S., tekhn. red.

[Determining specific capital investments in industry] Opredelenie udel'nykh kapital'nykh vlozhenii v promyshlennosti. Moskva, Ekonomizdat, 1963. 215 p.
(MIRA 17:1)

1. TSentral'nyy nauchno-issledovatel'skiy ekonomicheskiy institut.

(Capital investments)

MITROFANOV, A.I., kand.ekon.nauk

Increasing the economic efficiency of capital investments by shortening building time. Trudy MIEI no.15:348-353 '61.
(MIRA 14:12)

1. Rukovoditel'sektora TSentral'nogo nauchno-issledovatel'skogo ekonomicheskogo instituta Gosplana RSFSR.
(Capital investments)
(Construction industry)

MITROFANOV, A.I., kand. ekon. nauk

Efficiency of modernizing machine-tool equipment. Mashinostroitel' no.11:40-42 N '59. (MIRA 13:3)
(Machinery industry--Technological innovations)

Problems of Socialist (Cont.) 1182

Khavina, S.A. Capital Formation in Modern Bourgeois Literature of the US 386

AVAILABLE: Library of Congress (HC335.A629)

Card 4/4

JG/ar
2-24-59

Problems of Socialist (Cont.) 1182

Card 2/4

MITROFANOV, A.I.

PHASE I BOOK EXPLOITATION 1182

Akademiya nauk SSSR. Institut ekonomiki

Voprosy sotsialisticheskogo vosproizvodstva (Problems of Socialist Capital Formation) Moscow, Izd-vo AN SSSR, 1958. 414 p. 7,000 copies printed.

Resp. Ed.: Kronrod, Ya. A., Doctor of Economic Sciences; Ed. of Publishing House: Shenkman, B.I.; Tech. Ed.: Guseva, I.N.

PURPOSE: This collection of articles dealing with various aspects of capital formation is intended for Soviet economists.

COVERAGE: The book contains articles dealing with capital formation, relatively little publicized in Soviet economic literature. This subject is of interest because of the methodology discussed and the articles are considered by the authors as being of value to studies on national economic planning. There are no references.

TABLE OF CONTENTS:

Card 1/4

GLADSHTEYN, L.I., inzh.; MITROFANOV, A.A., kand.tekhn.nauk;
RUDCHENKO, A.V., inzh.

Comparison of converter and open-hearth St.3 plate steel.
Stal' 21 no.10:927-934 O '61. (MIRA 14:10)

1. Proyektstal'konstruktsiya i TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Steel--Testing)

(New State ...

types of the latter. Converter steel owes its increased plasticity to the absence of accompanying elements, which usually get into the Martin steel from the scrap. By using oxygen of a purity higher than 99%, converter steel of still higher plasticity than Martin steel is produced. This is of special importance to sheet metal intended for cold deep-drawing. By introducing GOST 9543-60, a great future is opened to the oxygen converter method, since the installation of this production is much cheaper and can be taken faster into operation than the Martin method. Everything points to the fact that the converter method is to become one of the most important development trends in ferrous metallurgy during the current Seven-year Plan.

Card 3/3

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134700021-6

(New State ...

quality: mechanical properties of rolled products, gas content, macro- and microstructure, cold-brittleness, tendency to mechanical aging, corrosion resistance, and weldability. Technological properties and strength of welding seams were investigated by: Moskovskoye vysshcye tekhnicheskoye uchilishche im. Baumana (Moscow Higher Technical School imeni Bauman), Branch Institutes: Institut elektrosvarki im. Patona (Institute of Electric Welding imeni Paton), GPI "Proyekstal'konstruktsiya" (State Institute for the Design, Study and Testing of Fabricated Steel and Bridges), Tsentral'nyy nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy (Central Scientific Research Institute of Structural Parts), as well as many laboratories of consumer plants. The results of this work formed the basis for the converter-carbon steel standard: "ГОСТ-9543-60 (GOST 9543-60) Types and technical requirements, valid from January 1, 1961 to January 1, 1963." Technical requirements were laid down similar to those for Martin steel according to GOST 380-60. Additionally, the maximum content of nitrogen in the rolled product is laid down with 0.008% in order to prevent the use of less purified oxygen. Since the converter steel mentioned is not inferior, with respect to mechanical properties, to Martin steel according to GOST 380-60, it may be used without any restrictions like the corresponding

Card 2/3

S/028/61/000/004/004/007
B103/B206

AUTHOR: Mitrofanov, A. A.

TITLE: (New State standards) Converter steel

PERIODICAL: Standartizatsiya, no. 4, 1961, 36-37

TEXT: The author states that at the zavod im. Petrovskogo (Plant imeni Petrovskiy) and zavod "Krivorozhstal'" ("Krivorozhstal'" Plant) converter steel has been molten for several years by blowing-in oxygen from above. Practice has shown that by using 98.5-99% pure oxygen a high-quality steel can be produced in this way from Martin cast iron in converters with basic lining, which is not inferior to Martin steel. The process was made possible by better production technique of pure oxygen in great quantities. The majority of metal molten in the USSR in converters falls to carbon steel for various purposes, apart from low-alloy steel. Up to January 1, 1961, the entire converter steel was delivered on the basis of technical conditions, which complicated its application. Since the start of industrial production of converter steel, the TsNIIChM (Central Scientific Research Institute of Ferrous Metallurgy) jointly with the two plants mentioned investigated its

Card 1/3

GULYAYEV, A.P., doktor tekhn.nauk; MITROFANOV, A.A., kand.tekhn. nauk; VOLKOVA, M.A., inzh.

Quality of oxygen-blown rimmed steel produced in converters. Stal' 20 no.8:741-745 Ag '60. (MIRA 13:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Bessemer process--Quality control)
(Oxygen--Industrial applications)

Oxygen Blown Converter Steel

attributed to the inadequate stability of the process and the non-uniformity of the charge materials used for producing the steel. The contents of harmful gas were no higher than in open hearth steels if oxygen of 98-99% purity was used and the nitrogen content was even lower than in open hearth steel if oxygen of 99.5% purity was used. In testing specimens made of rolled sections it was found that the relative elongation was higher for converter steel and this is attributed to the fact that converter steel does not contain accompanying elements (copper, nickel, etc.) which fall into the open hearth furnace from the charge. The cold brittleness of both steels did not vary greatly. The impact strength prior and after mechanical ageing was higher for converter steel specimens. The weldability was found to be identical for steels of equal composition. The corrosion resistance, investigated by Engineer D. T. Tufanov in an industrial atmosphere and in a village location, was practically the same for both types of steel. There are 3 figures, 2 tables and 10 Soviet references.

ASSOCIATION: TsNIICbM

Card 3/3

S/129/60/000/012/004/013
E073/E235

Oxygen Blown Converter Steel

The author compares the properties of converter steel produced with an oxygen blast with open hearth steel; the quality of the converter steel was investigated in the Institut Vysokokachestvennykh Stalay (Institute of High Grade Steels) of the TsNIIChM under the scientific guidance of Professor A. P. Gulyayev. Blowing from the top has proved to be the most suitable variant of using oxygen and at present the imeni Petrovsk plant and the "Krivorozhstal'" works apply this method. From the time that oxygen blast has been introduced in the converter plants over 5 million tons of steel was produced in this way, namely, the rimming steel Ст.3КП (St.3KP), Ст.2КП (St.2KP), Ст.Св.08 (St.Sv.08) and Ст.0 (St.0) and also the killed steel Ст.5 (St.5) and type Р62 (R62) steel. Analysis of test results has shown that as regards the chemical composition, mechanical properties, cold brittleness, proneness to mechanical ageing and fatigue strength, the investigated steels are as good as open hearth steels. The sulphur and the phosphorus contents are within the same limits as for open hearth steels. A greater variance in the contents of these elements was observed and this is

Card 2/ 3

S/129/60/000/012/004/013
E073/E235

AUTHOR: Mitrofanov, A. A.

TITLE: Oxygen Blown Converter Steel

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, No. 12, pp. 18-21

TEXT: It is stated in an editorial note that converter steel produced with oxygen blast is as good as open hearth steel and is even better as regards ductility. This paper is intended to inform the reader of the properties of such steels which are compared with open hearth steels. Since the conclusions are based on the results obtained with a large number of heats, the statement that the properties of such steels are equivalent to those of open hearth steels is fully justified. More detailed information on the properties of steels of this type is given in the quoted literature although the properties of oxygen blown converter steels, particularly of killed steels, including alloyed ones, have not been adequately studied. Conventionally produced converter steel contains 0.014 to 0.024% N, up to 0.060% S and up to 0.070% P. In open hearth rimming steel the contents of these elements will not exceed 0.008% N, 0.055% S and 0.045 P.

Card 1/3

S/129/60/000/011/011/016
E073/E535

Application of Converter Steel in the Automobile Industry

So far, these trucks have run over 50 000 km. It is concluded from the results that the investigated converter steel is as good as open hearth steel, particularly for hot rolled and cold rolled sheets which are to be used for deep drawing. There is 1 table.

ASSOCIATIONS: TsNIIChM, GAZ and ZIL

Card 2/2

S/129/60/000/011/011/016
E073/E535

AUTHORS: Mitrofanov, A.A., Candidate of Technical Sciences, Volkova, M.A., Letchford, N.I., Mochalov, G.N., Engineers

TITLE: Application of Converter Steel in the Automobile Industry

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, No.11, p.46.

TEXT: Data are given on industrial tests relating to the use of converter steel (0.17% C, 0.46% Mn, 0.032% S, 0.038% P) in the motor car industry. From 8 ton ingots of three commercial melts, strip was rolled which was used for producing rims of truck wheels. It was found that the chemical composition and the mechanical properties are the same as for open hearth steel. At the Gor'kiy Automobile Works 2900 such rims were produced and the performance of 1684 of them was closely observed. The number of rejects due to cracking along the weld seam during stretching of the rim was 0.87% for the experimental batch as compared to 0.71% for the batch made of open hearth steel of a similar composition. With these rims disc wheels were made which were fitted on 264 trucks.

Card 1/2

MITROFANOV, A.A.

New regulator made by General Motors. Avt.prom. no.4:42-44 Ap '60. (MIRA 13:6)
(United States--Automobiles--Engines)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134700021-6

SEL'KIN, G.S., inzh.; TRUBETSKOV, K.M., kand.tekhn.nauk; GREKOV, Yu.A., inzh.; ZADALYA, N.P., inzh.; VOYTOV, A.O., inzh.; MITROFANOV, A.A., kand.tekhn.nauk

Direct oxidation of the open-hearth bath with an oxygen-water mixture. Kislorod 11 no.6:3-7 F '59. (MIRA 12:3)
(Open-hearth process) (Oxygen--Industrial applications)

SOV/133-58-7-21/27

Properties of Metal Produced in Oxygen-blown Converters

gases, macro- and microstructure as well as weldability of rolled products produced from converter metal of heats investigated are practically the same as those from open-hearth metal. Tests of specimens from rolled converter and open-hearth steel for impact strength at various temperatures and after artificial ageing did not show any substantial difference in the indices. Testing conditions were practically the same. The quality of the usual and telegraph wire from converter metal did not differ from that made from open-hearth metal. There are 4 tables and 3 figures.

ASSOCIATIONS: Zavod im. Petrovskogo (Plant imeni Petrovskiy) and TsNIIChM

Card 3/3

1. Metals--Production 2. Metals--Properties 3. Blast furnaces --Operation 4. Oxygen--Applications

Properties of Metal Produced in Oxygen-blown Converters

produced by converter (a), Bessemer (b) and open-hearth (v) processes - Figure 1; frequency curves of nitrogen content in St. 3kp steel produced by converter (a) and open-hearth (b) processes - Figure 2; mean content of gases in rolled products from converter (K), open-hearth (M) and Bessemer (B) metal - Table 2; frequency curves of values for yield point (A), yield strength (B), relative elongation (V) and relative reduction (G) of steel St. 3kp produced by converter (a), open-hearth (b) and Bessemer (v) processes; impact strength at various testing temperatures and after artificial ageing of specimens from various rolled products from converter (nominator) and open-hearth (denominator) metal - Table 3; mechanical properties of welded specimens from open-hearth (M) and converter (K) St. 3kp steel - Table 4. It was found that properties of the metal (of a similar composition to that of open-hearth) produced from pig iron in oxygen-blown converters with basic lining are equal to those of open-hearth metal and correspond to the requirements of standards MChTU 5567-56; GOST 380-50 and GOST 4231-48 for open-hearth metal. The content of

Card2/3

SOV/133-58-7-21/27

AUTHORS: Ryzhkov, P.Ya., Engineer, Mitrofanov, A.A., Candidate of Technical Sciences, Reda, S.L., Engineer, Livshits, G.I., Candidate of Technical Sciences

TITLE: Properties of Metal Produced in Oxygen-blown Converters (Svoystva metalla, poluchennogo v konverterakh s produvkoy kislorodom)

PERIODICAL: Stal', 1958, Nr 7, pp 643 - 647 (USSR)

ABSTRACT: In the first half of 1957, on the works imeni Petrovskiy, over 300 000 tons of metal was produced in converters blown with technically pure oxygen. After rolling this was delivered to consumers instead of open-hearth metal. The following types of steel were produced: K2sp, K3sp, OKM, K10sp, K6sp, K62 (rail steel and AKML (low alloy for accessories). In view of the above, an investigation of the properties of converter steels and their comparison with open-hearth steels was carried out. A comparison of the mean chemical composition of various converter steels (nominator) with the standard composition of corresponding open-hearth steels (denominator) together with standard deviations (in brackets) - Table 1; frequency curves of the content of carbon (A), manganese (B), phosphorus (V) and sulphur (G) in steel St. 3sp.

Card1/3

Direct Oxidation of the Martin Tank by an Oxygen-Water Mixture

use of oxygen-water blast in the melting and tapping of low-carbon-content steel processing increased the furnace efficiency by 7-7.5%. The fuel consumption decreased by 7%, as compared to melting with oxygen blast. The quantity of liquid steel is somewhat less than that obtained by pure oxygen blast which is due to the ore consumption for the melt being a little lower. The best moment to begin blowing is about 80 minutes after the cast iron has begun flowing in, and the process is ended when the carbon content is higher by 0.02% than before deoxidation. In the melting of steels with a medium carbon content, the furnace efficiency was increased by 5-6%, whereas fuel consumption was lower by 2-3%. The hydrogen content in the boiling metal does not exceed the admissible quantity. The use of an oxygen-water mixture for blast has proved an efficient means for diminishing melt dust. Moreover, all impurities are thus separated. There are 3 figures, 2 tables, and 6 references, 4 of which are Soviet.

Card 2/2

5(2) SOV/67-59-6-2/22

AUTHORS: Sel'kin, G. S., Engineer, Trubetskov, K. K., Candidate of Technical Sciences, Grekov, Ye. A., Engineer, Zadalya, N. I., Engineer, Voytov, A. O., Engineer, Mitrofanov, A. A., Candidate of Technical Sciences

TITLE: Direct Oxidation of the Martin Tank by an Oxygen-Water Mixture (Pryamoye okisleniye martenovskoy vanny kislorodo-vodyanoy smes'yu)

PERIODICAL: Kislorod, 1958, Nr 6, pp 3 - 7 (USSR)

ABSTRACT: In the production of steel from cast iron, the latter was submitted to oxygen blowing in the melting tank, for the purpose of carbon burning. This process was accompanied by very high temperatures. Iron evaporated and formed a large amount of melt dust, which impair the refractory furnace lining and caused its premature destruction. By blowing with an oxygen-water mixture it was intended to reduce dust formation (30-35 m^3 oxygen, 40 l water; later on during the course of process, 30 l water). The investigations were carried out with two Martin furnaces of the "Zaporozhstal'" factory. Academician I. P. Bardin supervised the work. The

Card 1/2

133-10-6/26

The Quality of Steel 08kp, Produced (Cont.)

ASSOCIATION: TsNIIChM i zavod "Zaporozhstal'" (TsNIIChM and "Zaporozhstal' Plant")

AVAILABLE: Library of Congress

Card 5/5

The Quality of Steel 08КП, Produced (Cont.)

practice but is higher than in ladle samples. 3. In melts with combined method of using oxygen during refining (method V) increasing concentration of FeO in the final slag is accompanied by increasing contamination of the metal by complex oxide inclusions. 4. In respect of sensitivity to ageing the experimental method did not differ from that of current production. 5. According to defects on stamping on automobile works ZIL and GAZ experimental sheets differed little from those of current production, somewhat poorer results of stamping experimental sheets could be related to the teeming conditions of steel. The results for stamping ability of sheets from metal produced with the use of oxygen-water mixture require an additional checking. 6. The influence of the method of application of oxygen during smelting of steel on the mechanical properties of sheets, hardness, proportion of non-metallic inclusions, sensitivity to overheating, depth of stamping according to Erixon's method is practically absent. There are 8 tables and 2 Slavic references.

Card 4/5

The Quality of Steel 08кп, Produced (Cont.)

Results of the control of the macrostructure of metal Table 5. Size distribution of ferrite grains and precipitates of structurally free cementite in cold rolled sheets - Table 6. The dependence of the composition and quantity of non-metallic inclusions in metal on the smelting practice- Table 7. Results of stamping of cold rolled sheets (from heats made by different practices) on automobile works - Table 8. On the basis of the results obtained the following conclusions are drawn: 1. The yield of good metal from experimental heats of steel 08кп in the open hearth melting shop and in slabing and sheet rolling mills remained practically on the same level as for the current production. In the cold rolling shop the yield of cold sheets from heats in which oxygen was blown during refining and melting as well as in which oxygen-water mixture was used, remained on the same level as for current production (93.3 - 95.1%). 2. The content of gases (oxygen, hydrogen and nitrogen) in the metal from ladle samples of all experimental melts of steel 08кп is approximately on the same level, not exceeding the usual values for this steel. The gas content in samples of rolled products is practically independent from the smelting

Card 3/5

The Quality of Steel 08ν n, Produced (Cont.)

and the proportion of various defects, gas content (O_2, H_2 and N_2) in ladle samples and samples from slabs, the influence of the degree of oxidation of final slag on steel quality, macro and microstructure of metal, proportion of non-metallic inclusions, mechanical properties and the tendency of metal to mechanical ageing on the basis of tensile and impact tests, the tendency of metal to overheating and stamping ability of sheets (for motorcars, for complicated shapes). The following participated in the work: D. I. Shirinskiy, V. M. Lola, L. A. Zagadchenko (Engineers), V. I. Tudina, T. I. Zarya, G. K. Zamytskaya (Technicians from Zaporozhstal' Works), L. S. Kirik (laborant from TsNIIChM), Mochalov, Engr., (ZIL) and S. S. Zverev, Engr., (GAZ). The yield of good metal according to causes - Table 1. Defective sheets caused by metal quality and their distribution according to causes - Table 2. Gas content in ladle and slab samples - Table 3. The relationship between the degree of oxidation of slag before deoxidation, proportion of non-metallic inclusions and defects due to lamination (melts of practice V) - Table 4.

Card 2/5

МИТРОФАНОВ, А.А.

133-1-6/26

AUTHOR: Mitrofanov, A. A., Candidate of Technical Sciences, Cherkashina, N.P., and Volkova, M.A., Engineers

TITLE: The Quality of Steel 08кп, Produced With the Use of Oxygen. (Kachestvo Stali 08кп, Vyplavlyayemoy s Primeneniyem Kisloroda).

PERIODICAL: Stal', 1957, No.10, pp. 888-891 (USSR).

ABSTRACT: Five different practices in the application of oxygen in the open hearth furnace process are used in the Zaporozhstal' Works: A). A 25% oxygen enrichment of air supplied to flame (current production in 1956); B). The same, but up to 30% V. Oxygen supplied to flame and to the bath at a low carbon content (blowing oxygen during refining). C. The same, but at a high carbon content (blowing during melting period). D. Blowing oxygen-water mixture into the bath. Practices A, V and G passed industrial tests during long periods. Long duration industrial tests of practices B and D will be carried out in the near future. In this paper the evaluation of metal quality produced by all five modifications of using oxygen is described. The evaluation was carried out according to ГОСТ 914-49 and ГОСТ 914-56. In addition the following factors were studied: the yield of good metal on the main manufacturing plants

Card1/5

MITROFANOV, A.A., kandidat tekhnicheskikh nauk; CHERKASHINA, N.P., inzhener. VOLKOVA, M.A., inzhener.

Quality of the 08kp basic open-hearth steel smelted with use of oxygen at the "Zaporozhstal'" plant. Sbor.trud.TSNIICHM no.13: 171-181 '56. (MLRA 9:11)

(Zaporzh'ye--Steel--Metallurgy)
(Oxygen--Industrial applications)

MITROFANOV, A.A., kandidat tekhnicheskikh nauk.

Chain saws with increased wear resistance. Les.prom. [illegible]
Ja '54. (MLRA 7:1)
1. TSentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i energetiki lesnoy promyshlennosti.
(Chain saws)

MITROFANOV, A. A.

"Increasing the Cutting Power of Saws Used in Logging." Cand Tech Sci, Moscow Forestry Engineering Inst

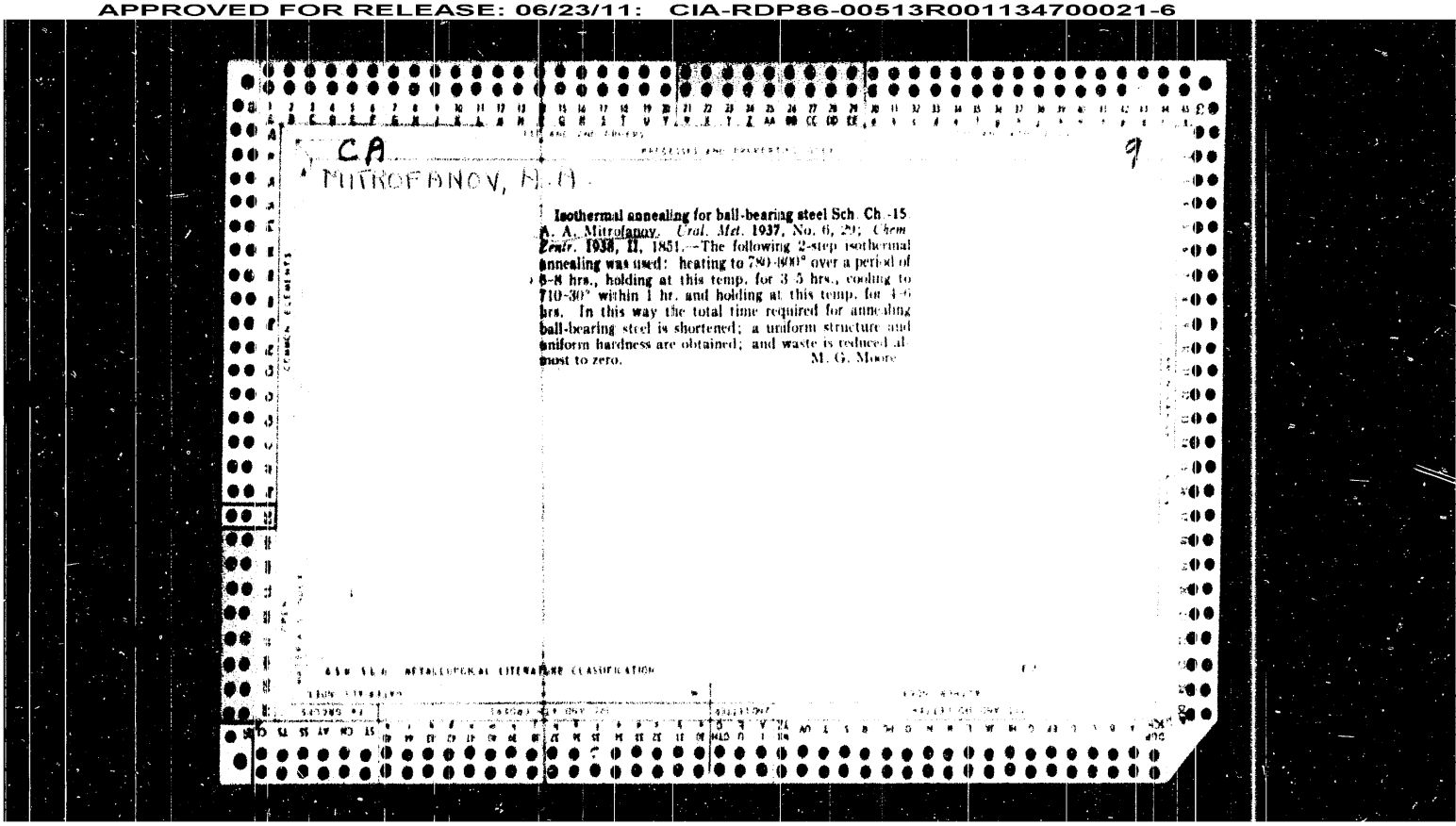
Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 430, 9 May 55

MITROFANOV, A.A

AFANAS'YEV, S.G., kand.tekhn.nauk; BEDA, N.I., inzh.; MITROFANOV, A.A., RYZHKOV, P.Ya., inzh.; KOTOV, N.K., inzh.; FILIPPOV, S.N. [deceased], inzh.

Quality of converter rimmed steel produced with an oxygen blast. Kislorod 10 no.4:5-13 '59. (MIRA 11:2)
(Steel)

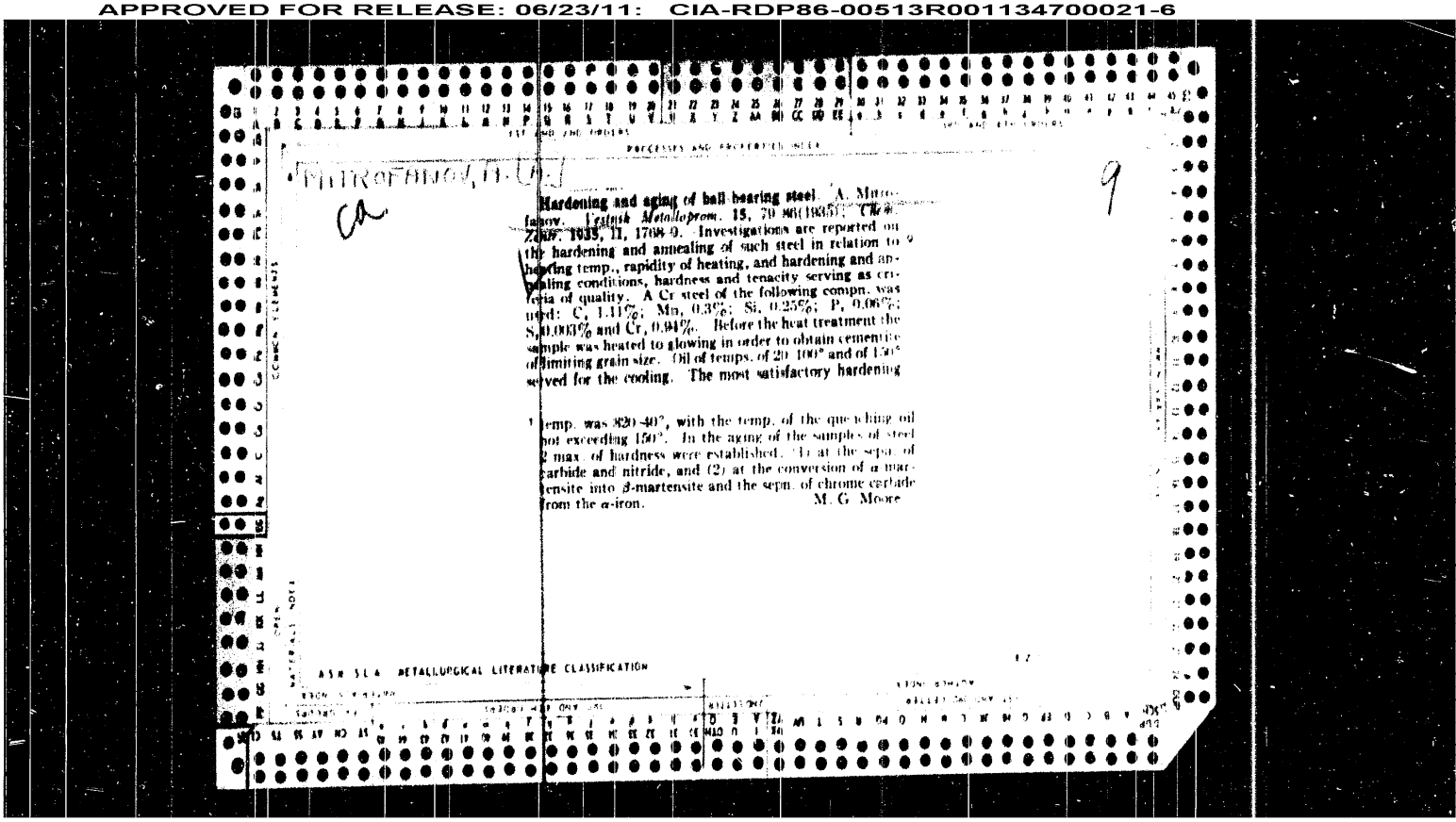


CA

MITROFANOV, A. A.

9

Isothermal annealing for ball-bearing steel Sch Ch -15. A. A. Mitrofanov. *Ural. Met.* **1937**, No. 6, 29; *Chem. Zentr.* **1938**, II, 1851.—The following 2-step isothermal annealing was used: heating to 780-800° over a period of 6-8 hrs., holding at this temp. for 3-5 hrs., cooling to 710-30° within 1 hr. and holding at this temp. for 4-6 hrs. In this way the total time required for annealing ball-bearing steel is shortened; a uniform structure and uniform hardness are obtained; and waste is reduced almost to zero. M. G. Moore



PROCESSES AND PROPERTIES—STEEL

MICROFILMED, 11-03

9

Hardening and aging of ball bearing steel. A. Mure-faisov. *Vestnik Metalloprom.* **15**, 70-86(1935). *Chem. Zentr.* 1935, II, 1708-9. Investigations are reported on the hardening and annealing of such steel in relation to heating temp., rapidity of heating, and hardening and annealing conditions, hardness and tenacity serving as criteria of quality. A Cr steel of the following compn. was used: C, 1.11%; Mn, 0.3%; Si, 0.25%; P, 0.06%; S, 0.03% and Cr, 0.94%. Before the heat treatment the sample was heated to glowing in order to obtain cementite of limiting grain size. Oil of temps. of 20-100° and of 150° served for the cooling. The most satisfactory hardening temp. was 820-40°, with the temp. of the quenching oil not exceeding 150°. In the aging of the samples of steel 2 max. of hardness were established. (1) at the sepn. of carbide and nitride, and (2) at the conversion of α martensite into β-martensite and the sepn. of chrome carbide from the α-iron. M. G. Moore

COPPER ALLOYS

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

CZECHOSLOVAKIA

KVETNANSKY, R; MITRO, A; MIKULAJ, L; HOCMAN, G

Institute of Endocrinology, Slovak Academy of Sciences (Endokrinologicky ustav Slovenskej akademie), Bratislava - (for all)

Bratislava, Bratislavske lekarske listy, No 1, January 1966, pp 35-41

"Catecholamines of the adrenal medulla and the morphological changes of the adrenal medulla during adaptation to repeated immobilization stress."

MITROFANENKO, N., polkovnik; POPOV, N., podpolkovnik zapasa

There is great strength in community feeling. Tyl i snab.Sov.Voor. Sil 21 no.3:61-66 Mr '61. (MIRA 14:6)
(Russia—Army—Supplies and stores)

L 1215-66 FSS-2

ACCESSION NR: AP5025830 RU/0005/65/000/005/0160/0163

AUTHOR: Mitrofan, Gheorghe (Engineer) 17

TITLE: Simultaneous checking of the video levels at the output of the intermediate amplifiers

SOURCE: Telecommunicatii, no. 5, 1965, 160-163

TOPIC TAGS: TV system, TV equipment, oscilloscope

ABSTRACT: A description of an oscilloscopic device built at the Bucharest television studios for the simultaneous control of the video level from three or four camera channels. Basic principles, operation and circuits are described. Orig. art. has: 8 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EC

NR REF SOV: 000 OTHER: 000 JPRS

Card 1/1

MITROFAN, Gheorghe, ing.

Reduction of the frequency spectrum of the television signals.
Telecomunicatii 7 no.3:118-25 My Je '63.

IATAN, Nicolaie, ing.; LANDES, V., ing.; ILINA, I., ing.; CIOCIRLIE, S., ing.; MITROFAN, A.; POPA, M., ing.; MIHAILA, Gh.; POPA, Septimiu, ing.; PASARE, P.; STENSCHI, C., ing.

Considerations on the quality of the equipment used for casting steel ingots in Rumania. Metalurgia constr mas 14 no.11:976-983 N '62.

1. Institutul de cercetari metalurgice (for Iatan, Landes, Ilina). 2. Uzina "Victoria" Calan (for Ciocirlie, Mitrofan). 3. Intreprinderea metalurgia Aiud (for Popa, M., Mihaila). 4. Combinatul siderurgic Hunedoara (for Popa, Septimiu; Pasare). 5. Combinatul siderurgic Resita (for Stenschi).

CZECHOSLOVAKIA

MITRO, A., KVETNANSKY, R., MIKULAS, L; Endocrinological Institute Slovak Academy of Sciences (Endokrinologicky Ustav SAV), Bratislava.

"Changes in the Catecholamine Content in the Pulp of Adrenal Glands During Adaptation and Their Morphological Basis."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, pp 77-[illegible]

Abstract: The influence of a repeated immobilization stress on the catecholamine content and histological aspect of adrenal gland pulp was investigated for 45 days. At the beginning, the catecholamine content decreased and at the end increased strongly. The weight of the pulp of adrenal glands increased during the experiment. The nuclei of the pulp cells increased after 7 days of experimentation. 3 Western references. Submitted at "16 Days of Physiology" at Kosice, 29 Sep 65.

1/1

L 33516-65
ACC NR: AP6023506 SOURCE CODE: CZ/0049/65/000/011/0856/0861

AUTHOR: Mitro, Alexander (Doctor; Bratislava); Mikulaj, Ladislav--Mikulay, L. (Doctor; Bratislava)

ORG: Institute of Endocrinology, SAV, Bratislava (Endokrinologicky ustav SAV)

TITLE: Karyometric changes in the hypothalamus of the male albino rat during adaptation to repeated stress. I. nn. ventromedialis, dorsomedialis, and arcuatus

SOURCE: Biologia, no. 11, 1965, 856-861

TOPIC TAGS: cytology, rat, encephalology, behavior pattern, nervous system

ABSTRACT: Karyometric changes in the hypothalamic nucleus ventromedialis, n. dorsomedialis, and n. arcuatus were investigated under the influence of repeated stress induced by a 2 1/2 hour immobilization. In n. dorsomedialis and arcuatus marked changes occur only in the first days of immobilization. Improvements occur later after adaptation. Changes in n. ventromedialis deepen under repeated stress (karyometric curves move to the left). This proves that n. ventromedialis participates significantly in acute response to stresses, and that it is an essential component of adaptation to repeated stress. Orig. art. has: 4 figures. [Based on authors' Eng. summary] [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 013

Card 1/1

0915 1466

LICHARDUS, B.; JONEC, V.; MITRO,A.; CORT, J.H.

The effect of a posterior hypothalamic lesion on the reaction to a salt-retaining stimulus in the rat. Physiol. Bohemoslov. 14 no.2:126-129 '65.

1. Institute of Endocrinology, Academy of Sciences, Bratislava and Institute for Cardiovascular Research, Prague.

MITRIS, P. P. (Candidate of Technical Sciences, Riga Polytechnic Institute)

"Production of welding materials for special applications".

Report presented at the 3rd Baltic Conference on Welding, convened by the Governments of the Lithuanian SSR, Latvian SSR, and Estonian SSR, 6-9 April 1964, Vilnyus.

[Avtomaticheskaya SVARKA, No. 7, 1964 p. 95]

IVANOVSKIS, Voldemars; MITRIS, Pavels; SUBACS, Arnolds; RUDZITIS, Raimonds; RASMANIS, Otto; VULFSONE, E., red.; AIZUPIETE, M., tekhn. red.

[Welder's handbook] Metinataja rokasgramata. [By] V.Ivanovskis un citi. Riga, Latvijas Valsts izdevnieciba. Vol.2. 1963. 270 p. (MIRA 16:4)

(Welding)

BAKSHAS, Ya.[Baksas, J.]; BUMBIYERS, Ya.[Bumbiers, J.]; MITRIS, P.; RUDZIT, R. [Rudzitis, R.]

Current control in the resistance seam-butt welding of thin sheets. Vestis Latv ak no.9:57-60 '61.

1. Akademiya nauk Latviyskoy SSR, Institut avtomatiki i mekhaniki.

RUDZIT, R. [Rudzits,R.] (Riga); MITRIS, P. (Riga)

Experimental studies on seam-butt electric welding of thin sheets.
Vestis Latv ak no.9:55-64 '59. (EEAI 9:10)

1. Akademiya nauk Latviyskoy SSR, Institut mashinovedeniya.
(Electric welding)

MITRIS, P

GENERAL

PERIODICALS: VESTIS, No. 3, 1958

MITRIS, P. Method for determination of the composition of electrode plating. In Russian. p. 139

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 2, February 1959, Unclass.

MITRIS, P.P.

137-58-3-5344

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 125 (USSR)

AUTHORS: Mitris, P. P., Rudzit, R. B.

TITLE: The Process of Butt-seam Resistance Welding of Thin Sheet Metal (O protsesse kontaktnoy shovno-stykovoy elektrosvarki tonkikh listov)

PERIODICAL: Izv. AN LatvSSR, 1957, Nr 4, pp 129-142 (Summary in Latvian)

ABSTRACT: The new method of butt-seam resistance welding (W) of thin sheet metal involves the passage of the overlapping sheet edges through shaping rollers, which cause the sheets to assume the butt joint position with a gap in the center. The W is accomplished when the sheets so arranged pass through the supporting rollers and under the electrodes of an annular transformer. The experimental butt-seam welding machine includes the annular transformer, an autotransformer, and an electric motor. An experimental investigation was carried out with the W of a 100x0.8 mm cold-rolled strip of low carbon steel. The welded joint is devoid of incomplete-penetration defects and oxide inclusions; the W process is stable; W is also possible at greater rates of speed than in other methods. V. Ts.

Card 1/1

Automation of Hard-facing Operations

electrode hard facing, in which the extra electrode is fed current from the center tap of the welding transformer secondary. This method permits control, within wide limits, of the shape taken by the facing metal and the depth of fusion of the parent metal. The Institute of Electric Welding has established that a repeat restoration of worn surfaces previously faced with chalk electrodes is possible without the formation of pores in the facing metal. Facing is done under fluxes AN-348A, OSTs-45, and AN-10, with Al added in the form of an Fe alloy to bind the N_2 into an Al nitride. 12 percent alloying element is added to the first two fluxes, and 7 percent to the last. The hardness of the facing applied to steel with 0.35 percent wire grade SV-08 is 350 H_B. The best of the fluxes in question for facing purposes is AN-10.

1. Abrasion resistant alloys--Applications 2. Submerged melt welding --Applications 3. Metals--Hard surfacing V.S

Card 2/2

MITRIS, P. P.

137-58-4-7351

Translation from: Referativnyy zhurnal, Metallurgiya, 1958 Nr 4 p 147 (USSR)

AUTHOR: Mitris, P. P.

TITLE: Automation of Hard-facing Operations (Avtomatizatsiya protsessov naplavochnykh rabot)

PERIODICAL: Tr. Konferentsii po avtomatiz. i mekhanizm. tekhnol. protsessov. Riga, 1957, pp 87-95

ABSTRACT: Existing methods of hard-facing of worn surfaces of machine parts by means of arc welding are examined in terms of rate of output. The directions to be followed in further hard-facing progress--automation of the process and hard facing with wear-resistant alloys--are noted. Organization of centralized manufacture of high-quality electrodes and development of the technology and equipment needed for automatic hard facing are required for the further advance of these processes. It is observed that the employment of single-electrode automatic and semi-automatic submerged welding for the purposes of hard facing is inefficient, since the greater portion of the heat emitted by the arc goes to deep fusion of the parent metal. The welding laboratory of the LIIVT has developed a method of submerged single-phase two-

Card 1/2

S/860/61/000/000/003/020
A006/A101

AUTHORS: Mitris, P. P., Rodzik, R. B.

TITLE: A method of resistance seam-butt welding thin sheets

SOURCE: Sbornik izobreteniy; svarochnaya tekhnika. Kom. po delam izobr. i otkrytiy. Moscow, Tsentr. byuro tekhn. inform. 1961, 96. (Author's Certificate no. 107561, cl. 21h, 29_{10}; no. 561770 of December 3, 1956)

TEXT: In the described method the sheets are preliminarily overlap-assembled with the aid of supports. They are then passed underneath the shaping rolls which deform the sheet edges in such a manner that their overlap position is transformed into butts with a gap. The sheets pass then between the backing roll and the current-conducting rolls of a ring-shaped rotating transformer. The sheet edges are reverse-deformed until their full straightening. They do not return into the overlap position but remain during the deformation process in the butt position. Upsetting under the current which passes through the welded butt, takes place as a result of straightening the sheets. There is 1 figure.

Card 1/1

MITRIS, P.P.

USSR/Engineering - Steam turbines

Card 1/1 : Pub. 128 - 7/38

Authors : Indirkson, G. F., and Mitris, P. P.

Title : Erosion of the wall of a steam turbine casing

Periodical : Vest. mash. 9, 33-35, Sep 1954

Abstract : Defects in turbine and control system design which cause severe erosion inside the turbine casing and electric welding methods for the restoration of the casing, are discussed. Illustrations; graph; table; drawing.

Institution : .....

Submitted : .....

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134700021-6

MITRIS, P. P.

Dissertation: "Investigation of the Problem of Designing Electrode Coatings on the Basis of Carbonates and Reducing Agents." Cand Tech Sci, Inst of Power Engineering and Electrical Engineering, Acad Sci Latvian SSR, Riga, 1953. (Referativnyy Zhurnal--Khimiya, Moscow, No 5, Mar 54)

SO: SUM 243, 19 Oct 54

MITRINOWICZ-MODRZEJEWSKA, Aleksandra; PAWLOWSKI, Zygmunt; TIECHOWSKI, Witold

Developmental defects of the palate as a multi-system disorder. Rozpr. wydz. nauk med. 10 no.1:33-131 '65.

1. Z Oddzialu Foniatrycznego Kliniki Otolaryngologicznej AM w Warszawie (Kierownik Oddzialu Foniatrycznego: prof. dr. med. Aleksandra Mitrinowicz-Modrzejewska). Recenzentami byli: prof. dr. med. J. Taniewski, doc. dr. med. H. Kozniewska.

MITRINOWICZ- MODRZEJEWSKA, Aleksandra

Delayed speech development (allalia prolongata). Pediat. pol. 39 no.1:73-76 Ja'64